DOCUMENT RESUME

ED 409 787 HE 030 297

TITLE	Relationship between High School and College Performance by Maryland Students. Student Outcome and Achievement Report.
INSTITUTION	Maryland State Higher Education Commission, Annapolis.
PUB DATE	Jun 97
NOTE	20p.; For previous study, see ED 404 976.
AVAILABLE FROM	Maryland State Commission on Higher Education, 16 Francis Avenue, Annapolis, MD 21401; phone: 410-974.2971.
PUB TYPE	Legal/Legislative/Regulatory Materials (090) -- Numerical/Quantitative Data (110) -- Reports - Research (143)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Academic Achievement; College Bound Students; College Freshmen; College Outcomes Assessment; *College Preparation; Evaluation Criteria; Grade Prediction; *Grades (Scholastic); *High School Graduates; High Schools; Higher Education; Performance; Performance Factors; Predictive Measurement; Predictor Variables; Regression (Statistics); Sex Differences; Socioeconomic Status; Student Characteristics; Student Evaluation; Tables (Data)
IDENTIFIERS	*Maryland

ABSTRACT

This study examined the relationship between students' academic performance in high school vis-a-vis their performance in the first year at college. The study analyzed data on students who graduated from Maryland high schools in the 1994-95 academic year and who were enrolled in 2- and 4-year Maryland public institutions or in one of 11 state-aided independent institutions. The study distinguished between students who did or did not complete a college preparatory curriculum in high school. Consistent with the previous year, the study found that core students performed better than non core students on every measure of college academic achievement. High school grade point average emerged as the single best predictor of first college math grade, first college English grade, and college grade point average. Other good predictors of first college math grade were the Scholastic Assessment Test (SAT) math score and whether a student was in honors calculus in high school. High school English and the SAT verbal score were good indicators of first college English grade. Demographic variables which were predictive of college performance were gender (women outperformed men) and father's educational level. (CH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 409 787

MARYLAND HIGHER EDUCATION COMMISSION

RELATIONSHIP BETWEEN HIGH SCHOOL AND COLLEGE PERFORMANCE BY MARYLAND STUDENTS

-Student Outcome and Achievement Report-

June 1997

HE030 297

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Marvland H.E. Comm

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

MARYLAND HIGHER EDUCATION COMMISSION
16 Francis Street, Annapolis, Maryland 21401

BEST COPY AVAILABLE

MARYLAND HIGHER EDUCATION COMMISSION

Edward O. Clarke, Jr., Chairman

The Honorable J. Glenn Beall, Jr.

Dorothy Dixon Chaney

Donna H. Cunninghame

John L. Green

Jamie Kendrick

Terry L. Lierman

Osborne A. Payne

R. Kathleen Perini

Charles B. Saunders, Jr.

Richard P. Streett, Jr.

Albert Nathaniel Whiting

Patricia S. Florestano, Ph.D.
Secretary of Higher Education

This publication is available in alternate formats.
Please call (410) 974-2971 or (800) 735-2258 (TTY/Voice).

INTRODUCTION

The General Assembly passed legislation in 1988 that required the Maryland Higher Education Commission "to improve information to high schools and local school systems concerning the performance of their graduates at the college level."

In 1990, the Commission established the Student Outcome and Achievement Report (SOAR) to fulfill this mandate. In addition to providing information that can be used for tracking student outcomes at the State level, SOAR was intended to be a tool to help local educators with the evaluation of high school preparatory programs, curriculum development, counseling, and the establishment of education policy. This is the fifth consecutive year in which county superintendents and high school principals have received annual reports of how well students from their particular schools performed at the college level.

The high school graduate system of SOAR collects information about several aspects of the college performance of new high school graduates: remedial work needed in math, English and reading; grades in their first math and English courses; and cumulative grade point average. In order to provide a better understanding of the factors that influence collegiate academic performance, the Commission began in 1996 to include data about students' high school experiences. This information was supplied by The College Board, which administers the Scholastic Assessment Test (SAT) and the American College Testing Program (ACT).

Students who take the SAT or ACT complete a comprehensive questionnaire asking about their high school performance and experiences as well as family and personal characteristics. Included are the courses they have taken in various subjects and their grades, the years studied in specific academic areas, whether they were enrolled in honors classes, and their grade point average and rank in class. This information has been matched by social security number to the SOAR data.

This report draws on the combined sets of data to examine the relationship between students' academic performance and experiences in high school and how well they did in their initial year in college. Specifically, it looks at students who graduated from a Maryland high school in the 1994-1995 school year who enrolled at a Maryland college or university during the 1995-1996 academic year. All public two- and four-year campuses in Maryland and 11 State-aided independent institutions currently participate in SOAR. The report contains two sections. The first examines the differences between the college performance of students who did or did not complete a college preparatory curriculum in high school. The second contains the results of a multiple regression analysis which seeks to identify the factors that best predict first-year college performance. Comparisons are made as appropriate with the results from the college freshmen in 1994-1995.

Limitations of the Data

These are the limitations inherent in the SOAR data:

1. No information could be collected about the high school experiences of students who did not take the SAT or ACT. Hence, about 30 percent of the first-year college students were not included in this study. Most of these individuals attended community colleges, which have open-door admissions.

2. The information on high school experiences is collected through a questionnaire completed by students when they take the SAT or ACT. Hence, its accuracy depends on the veracity of those completing the questionnaire. An ACT study of the reliability of self-reported data found that students were truthful in supplying information about their courses and grades.

3. The content of courses taken in specific subject areas may vary among schools and even within a school.

4. The definition of remediation is determined by each college and university. In addition, campuses have differing policies with regard to the identification and placement of remedial students, including the use of a wide assortment of tests and cut-off scores. Hence, remediation rates are not comparable across institutions.

COLLEGE PERFORMANCE OF CORE AND NON CORE STUDENTS

The academic performance of students in their first year of study at a Maryland campus was examined in terms of whether they did or did not take a college-preparatory course of study in high school. Students who did complete a college-recommended curriculum were called "core" in this report; all others, "non core". Students were assessed on the basis of their need for remedial assistance in math, English and reading; grades in their first English and math courses, and cumulative grade point average. The information was presented by institution, jurisdiction, gender and race (see Tables 1 - 12).

The categorization of students as "core" or "non core" depended on whether the student completed a course of study that closely fit the freshmen admissions requirements of the University of Maryland System (UMS). To be included as "core", a student had to have taken all of the following in high school:

- 4 or more years of English
- 3 or more years of mathematics
- 3 or more years of social science or history
- 2 or more years of natural science
- 2 or more years of foreign languages

Students who did not fulfill this exact curriculum were deemed "non core." UMS' requirements differ very slightly from those above: students must take two years of a laboratory science, have two or more years of the same foreign language, and complete three specific math courses: two years of algebra and one of geometry. Integration of these additional requirements into the "core" definition was not possible because of the nature of the SAT/ACT data.

Like last year, core students in 1995-1996 performed better than non core students on every measure of college academic achievement. Fewer core students required remedial assistance in math, English and reading. Core students also earned higher grades in their initial math and English courses in college and had higher grade point averages after their first year. With a few exceptions, core students outperformed non core students regardless of the county or region in which they attended high school, the specific college or university at which they were enrolled, or on the basis of race or gender. The results were highly comparable to those of the previous year.

Remediation

Of the non core students, nearly one-third (32 percent) needed remedial assistance in math. This compared to 19 percent for core students. More than twice as many non core students (24 percent) than core students (11 percent) required remediation in English, and nearly double the number of non core students (25 percent) than core students (13 percent) needed help in reading. Nonetheless, it is sobering that almost one-fifth of the students who took a college-preparatory curriculum in high school, which includes three years of mathematics, were still assessed for remediation in math.

Nearly one-third (31 percent) of the core students at the community colleges required remedial help in math, about one-quarter (24 percent) needed remediation in reading, and almost one-fifth (19 percent) in English. Of the non core community college students, 42 percent were assessed for remediation in math, 35 percent in reading, and 33 percent in English. Garrett Community College had the greatest percentage of students (both core and non core) needing math remediation, while Baltimore City Community College led the two-year institutions by far in terms of the proportion of core and non core students requiring remedial assistance in English and reading.

Nine percent of the core students at public four-year campuses were assessed as needing math remediation, as were 6 percent in English and 5 percent in reading. Sixteen percent of the non core students required help in math, 10 percent in English, and 9 percent in reading. Among the public four-year institutions, three historically black campuses--Bowie, Coppin and University of Maryland Eastern Shore--represented the largest share of the students needing remediation.

Students from Baltimore City had among the highest remediation rates of the "service delivery areas" (major jurisdictions) in the State. Of the core students, 27 percent required remedial help in math, 25 percent in English and 23 percent in reading. More than 40 percent of the non core students from Baltimore City needed remediation in these areas.

A greater percentage of African Americans than other races needed remedial help. Of the African American students who completed a college preparatory curriculum, 32 percent required remediation in math, 26 percent in reading, and 24 percent in English. A majority of non core African-American students (47 percent) were assessed for remediation in math, as were 42 percent in English and reading.

Grade in First Math Course

Core students statewide earned an average grade of 2.4 (on a 4.0 scale) in their first math course in college, compared to 2.2 for non core students. A somewhat greater percentage of core students (78 percent) achieved a "C" or better than did non core students (73 percent). The lowest math grades of any major jurisdiction were received by students who attended high school in Prince George's County (2.2 for core students and 2.0 for non core students). The highest was achieved by students from the Lower Shore.

Women tended to earn noticeably higher math grades than did men, both among core and non core students. The math grades of African Americans (2.2 for core students and 2.0 for non core students) lagged behind those of whites and Asians. Nonetheless, a solid majority of African American students (73 percent of the core and 70 percent of the non core) achieved at least a "C" in their first math course.

Grade in First English Course

Core students in Maryland attained an average grade of 2.6 in their initial English course in college, compared to 2.4 for non core students. A substantial majority of both core (88 percent) and non core students (82 percent) attained a "C" or better in the first college English course. Students who attended Western Maryland high schools led the State in grades in college English.

Both core and non core women earned sharply higher grades in their first English course than did their male counterparts. While the grades of African Americans trailed those of Asians and whites among core and non core students, more than 80 percent of the African Americans in both groups achieved a grade of "C" or better.

Grade Point Average

Statewide, core students earned a cumulative grade point average in college of 2.5, compared to 2.2 for non core students, which was identical to last year's results. The highest averages were earned by students who attended high school in Southern Maryland and Western Maryland. The grade point averages of women, both core and non core, greatly exceeded those of men. African American students had lower grade point averages (2.2 for core and 2.0 for non core) than those of other races.

FACTORS AFFECTING COLLEGE PERFORMANCE

An examination was made of the relationship between the high school experiences and background characteristics of students and their performance in college. The intention was to identify factors that might help to predict college success, thus helping high school teachers and guidance counselors to advise students better on preparation for higher education.

Method

A multiple regression analysis was conducted, using the first math and English grades and cumulative grade point average as measures of collegiate performance and 66 items on the SAT questionnaire plus some SOAR demographic data as indicators of high school experiences or student background. The ACT information, which was used in differentiating between core and non core students, was not included in this particular part of the study because the comparatively small number of students who took this test could have distorted the results.

Four steps were employed in the analysis. The first was to build a model from the existing data that would contain only relevant variables--those that were good predictors of college performance. A stepwise selection approach was implemented. The only variables that were retained were those that met the standard .05 significance criterion for each of the college performance variables. This process eliminated the great majority of the variables representing high school experiences and background attributes. The second step was to calculate a correlation coefficient between each college performance variable and each high school experiences variable (and a coefficient among each of the high school experiences variables). The third step was to conduct a multiple regression analysis entering all of the high school experiences variables simultaneously and examining their relationship with each of the college performance variables separately. If a high school experiences variable did not achieve a "*t*" significance level of .05 on the multiple regression analysis and did not have a correlation coefficient of at least .1 in its relationship with the college performance variable, it was eliminated. The fourth step was to implement another series of multiple regression analyses, one for each of the college performance variables. The remaining high school experiences variables were entered individually in order of its strength. The results are displayed in Tables 13, 14 and 15.

The factors which, by themselves, emerged as the best predictors of college performance ($t < .05$) are as follows in the order of their strength:

First Math Grade	High School Grade Point Average
	SAT Math Score
	Average Grade in High School Foreign Language Courses
	Whether Student Was Enrolled in Honors Calculus Course
	Gender
	SAT Verbal Score
First English Grade	High School Grade Point Average
	Average Grade in High School English Courses
	SAT Verbal Score
	Gender
	Whether Student Was Enrolled in Honors Calculus Course
	Father's Educational Level
Grade Point Average	High School Grade Point Average
	Average Grade in High School English Courses
	SAT Verbal Score
	SAT Math Score
	Average Grade in High School Social Science Courses
	Whether Student Was Enrolled in Honors Pre-Calculus Course
	Gender
	Father's Educational Level

For the second consecutive year, the best predictor of college performance by far for all three variables was student high school grade point average. The SAT math score and whether a student was in honors calculus were among the good predictors of the first college math grade. The average grade in high school English courses and the SAT verbal score provided a strong indication of how they would perform in their initial college English course.

Strong predictors of college grade point average, beyond the student's high school grade point average, were the SAT verbal and math scores, average grade in high school English and social studies courses, and enrollment in honors pre-calculus.

Two demographic variables proved to be good predictors of college performance. The most intriguing was gender, which was a significant factor in determining college performance on all three of the variables--even after controlling for all of the other high school experiences and demographic factors. It would be difficult to dismiss this finding, especially since this is the second consecutive year in which gender emerged as a relevant predictor for all three variables, and its relationship to student performance is stronger this year than in 1994-1995. The first math and English course grades and cumulative grade point averages of women easily outpaced those of men in this study. The father's educational level, which is recognized as one of the best measures of socio-economic status, was a good predictor of the grade point average of college students as well as their performance in their initial English course.

Table 1

Percent of Core and Non Core Curriculum Students Needing Remediation in College (By Jurisdiction)

	Math		English		Reading	
	Core	Non-Core	Core	Non-Core	Core	Non-Core
Anne Arundel	20%	36%	8%	18%	13%	23%
Baltimore City	27%	44%	25%	47%	23%	46%
Baltimore	17%	26%	14%	23%	13%	24%
Frederick	30%	36%	19%	35%	9%	14%
Lower Shore	10%	15%	10%	35%	12%	37%
Somerset	22%	25%	17%	50%	22%	50%
Wicomico	6%	10%	9%	32%	9%	32%
Worchester	11%	19%	10%	33%	13%	38%
Mid Maryland	14%	26%	11%	19%	9%	17%
Carroll	9%	16%	10%	20%	4%	12%
Howard	18%	32%	11%	19%	12%	20%
Montgomery	12%	26%	4%	14%	11%	21%
Prince George's	24%	38%	15%	27%	17%	25%
Southern Maryland	7%	19%	7%	18%	25%	37%
Calvert	9%	21%	5%	13%	20%	27%
Charles	7%	20%	10%	21%	27%	42%
St. Mary's	5%	15%	6%	19%	27%	36%
Susquehanna	26%	44%	10%	23%	5%	9%
Cecil	14%	23%	8%	16%	7%	12%
Harford	29%	48%	10%	24%	5%	8%
Upper Shore	23%	32%	11%	22%	8%	15%
Caroline	19%	31%	8%	19%	4%	0%
Dorchester	26%	39%	17%	50%	13%	33%
Kent	24%	29%	9%	18%	3%	24%
Queen Anne's	28%	35%	11%	14%	11%	9%
Talbot	14%	25%	8%	21%	6%	14%
Western Maryland	20%	27%	8%	12%	5%	10%
Allegany	27%	36%	14%	16%	8%	16%
Garrett	31%	44%	4%	8%	2%	8%
Washington	12%	16%	5%	9%	3%	6%
ALL MARYLAND	**19%**	**32%**	**11%**	**24%**	**13%**	**25%**

Note: Figures from Washington County are affected by incomplete remediation data supplied by Hagerstown Junior College.

Table 2
Performance in First College Math Course of Core and Non Core Curriculum Students (By Jurisdiction)

	% With 'C' or Better		Average Grade	
	Core	Non-Core	Core	Non-Core
Anne Arundel	79%	75%	2.5	2.3
Baltimore City	79%	72%	2.4	2.1
Baltimore	78%	76%	2.4	2.3
Frederick	82%	76%	2.5	2.3
Lower Shore	87%	85%	2.7	2.5
Somerset	91%	83%	2.8	2.7
Wicomico	86%	88%	2.8	2.6
Worchester	86%	80%	2.6	2.5
Mid Maryland	77%	79%	2.4	2.4
Carroll	78%	74%	2.3	2.2
Howard	77%	83%	2.4	2.4
Montgomery	77%	69%	2.5	2.1
Prince George's	73%	67%	2.2	2.0
Southern Maryland	80%	80%	2.4	2.4
Calvert	85%	85%	2.4	2.7
Charles	78%	76%	2.2	2.4
St. Mary's	78%	83%	2.4	2.6
Susquehanna	75%	72%	2.3	2.2
Cecil	70%	64%	2.1	1.9
Harford	77%	75%	2.3	2.3
Upper Shore	83%	71%	2.4	2.2
Caroline	86%	86%	2.4	2.6
Dorchester	88%	83%	2.7	2.7
Kent	85%	57%	2.2	1.7
Queen Anne's	77%	75%	2.4	2.3
Talbot	82%	58%	2.6	1.8
Western Maryland	82%	80%	2.6	2.3
Allegany	82%	78%	2.5	2.2
Garrett	96%	69%	3.0	2.0
Washington	80%	85%	2.6	2.5
ALL MARYLAND	**78%**	**73%**	**2.4**	**2.2**

Table 3

Performance in First College English Course of Core and Non Core Curriculum Students (By Jurisdiction)

	% With 'C' or Better		Average Grade	
	Core	Non-Core	Core	Non-Core
Anne Arundel	89%	84%	2.6	2.5
Baltimore City	89%	84%	2.6	2.3
Baltimore	89%	84%	2.6	2.5
Frederick	89%	74%	2.6	2.1
Lower Shore	92%	91%	2.7	2.7
Somerset	93%	100%	2.9	3.1
Wicomico	92%	91%	2.8	2.7
Worchester	93%	90%	2.6	2.5
Mid Maryland	89%	79%	2.6	2.3
Carroll	90%	73%	2.5	2.1
Howard	89%	83%	2.7	2.4
Montgomery	85%	76%	2.5	2.2
Prince George's	84%	83%	2.4	2.3
Southern Maryland	90%	88%	2.7	2.6
Calvert	91%	89%	2.7	2.9
Charles	89%	85%	2.8	2.4
St. Mary's	91%	94%	2.7	2.8
Susquehanna	90%	78%	2.7	2.4
Cecil	93%	90%	2.8	2.5
Harford	89%	76%	2.6	2.3
Upper Shore	85%	85%	2.5	2.3
Caroline	87%	92%	2.6	2.8
Dorchester	89%	83%	2.7	2.2
Kent	91%	79%	2.5	2.1
Queen Anne's	75%	85%	2.3	2.4
Talbot	89%	86%	2.6	2.3
Western Maryland	93%	90%	2.8	2.7
Allegany	95%	91%	2.8	2.6
Garrett	90%	79%	2.9	2.6
Washington	91%	93%	2.7	2.7
ALL MARYLAND	**88%**	**82%**	**2.6**	**2.4**

Table 4

Cumulative Grade Point Average After First Year of Core and Non Core Curriculum Students (By Jurisdiction)

	Core	Non-Core
Anne Arundel	2.6	2.3
Baltimore City	2.3	2.0
Baltimore	2.5	2.3
Frederick	2.6	2.3
Lower Shore	2.5	2.1
Somerset	2.3	1.7
Wicomico	2.6	2.2
Worchester	2.4	2.1
Mid Maryland	2.5	2.3
Carroll	2.5	2.1
Howard	2.6	2.4
Montgomery	2.5	2.1
Prince George's	2.3	2.2
Southern Maryland	2.7	2.6
Calvert	2.8	2.7
Charles	2.7	2.4
St. Mary's	2.7	2.8
Susquehanna	2.5	2.2
Cecil	2.6	2.5
Harford	2.5	2.1
Upper Shore	2.4	2.1
Caroline	2.4	2.0
Dorchester	2.6	2.3
Kent	2.4	2.0
Queen Anne's	2.4	2.3
Talbot	2.5	1.9
Western Maryland	2.7	2.5
Allegany	2.7	2.4
Garrett	3.0	2.3
Washington	2.6	2.6
ALL MARYLAND	**2.5**	**2.2**

Table 5

Percent of Core and Non Core Curriculum Students Needing Remediation in College (By Institution)

	Math		English		Reading	
	Core	Non-Core	Core	Non-Core	Core	Non-Core
Community Colleges						
Allegany	51%	68%	29%	39%	16%	35%
Anne Arundel	36%	50%	13%	23%	22%	30%
Baltimore City	54%	67%	79%	85%	80%	85%
Carroll	9%	13%	15%	26%	5%	16%
Catonsville	32%	40%	25%	38%	32%	45%
Cecil	19%	36%	17%	36%	10%	24%
Charles	6%	17%	8%	18%	41%	51%
Chesapeake	35%	37%	16%	28%	10%	15%
Dundalk	48%	53%	45%	51%	19%	28%
Essex	29%	36%	25%	40%	31%	41%
Frederick	55%	47%	34%	50%	15%	21%
Garrett	62%	71%	8%	14%	4%	14%
Hagerstown	-	-	-	-	-	-
Harford	56%	59%	16%	27%	5%	9%
Howard	56%	60%	28%	36%	27%	35%
Montgomery	19%	37%	8%	21%	22%	34%
Prince George's	33%	47%	25%	38%	26%	33%
Wor-Wic	2%	8%	21%	51%	23%	51%
All Community Colleges	**31%**	**42%**	**19%**	**33%**	**24%**	**35%**
University of Maryland						
Bowie	30%	33%	19%	25%	20%	13%
Coppin	60%	75%	38%	41%	9%	20%
Frostburg	12%	17%	-	-	-	-
Salisbury	*	1%	2%	0%	2%	1%
Towson	4%	3%	13%	15%	5%	9%
UMBC	5%	3%	2%	4%	9%	13%
UMCP	5%	8%	-	-	-	-
UMES	39%	40%	21%	30%	21%	36%
All University of Maryland	**10%**	**17%**	**6%**	**10%**	**5%**	**9%**
Morgan	6%	7%	6%	15%	9%	10%
All Public Four-Year	**9%**	**16%**	**6%**	**10%**	**5%**	**9%**
Independents						
Capitol College	8%	58%	8%	33%	-	-
Loyola	0%	2%	-	-	-	-
Mount St. Mary's	33%	31%	-	-	-	-
Villa Julie	1%	2%	2%	5%	5%	14%
All Independents	**5%**	**8%**	**1%**	**3%**	**1%**	**4%**
All Campuses	**19%**	**32%**	**11%**	**24%**	**13%**	**25%**

* Less than 0.5 percent

Notes: St. Mary's, College of Notre Dame, Goucher, Johns Hopkins, Peabody, St. John's, Washington College and Western Maryland do not have remedial programs. UMCP, Frostburg, Loyola and Mount St. Mary's do not offer remediation in English and reading, and Capitol does not offer these programs in reading. Incomplete remediation figures were supplied by Hagerstown Junior College, because of a conversion in computer systems.

Table 6
Performance in First College Math Course of Core and Non Core Curriculum Students (By Institution)

	% with 'C' or Better		Average Grade	
	Core	Non-Core	Core	Non-Core
Community Colleges				
Allegany	80%	88%	2.5	2.6
Anne Arundel	75%	69%	2.3	2.1
Baltimore City	62%	56%	1.8	1.6
Carroll	71%	56%	2.2	1.8
Catonsville	74%	73%	2.2	2.1
Cecil	52%	58%	1.8	1.7
Charles	76%	76%	2.3	2.2
Chesapeake	84%	74%	2.3	2.3
Dundalk	65%	71%	2.3	2.3
Essex	71%	67%	2.0	1.9
Frederick	81%	70%	2.5	2.0
Garrett	90%	0%	2.7	0.0
Hagerstown	84%	86%	2.6	2.5
Harford	76%	72%	2.3	2.2
Howard	63%	67%	1.9	2.0
Montgomery	69%	58%	2.2	1.8
Prince George's	67%	60%	2.0	1.8
Wor-Wic	82%	95%	2.8	2.8
All Community Colleges	**73%**	**67%**	**2.2**	**2.0**
University of Maryland				
Bowie	80%	68%	2.5	2.1
Coppin	93%	79%	2.9	2.4
Frostburg	71%	76%	1.9	2.0
Salisbury	89%	81%	2.8	2.5
Towson	78%	77%	2.5	2.5
UMBC	85%	91%	2.7	2.8
UMCP	77%	74%	2.5	2.4
UMES	85%	89%	2.6	2.5
All University of Maryland	**79%**	**79%**	**2.5**	**2.4**
Morgan	75%	76%	2.4	2.3
St. Mary's	91%	89%	2.7	2.5
All Public Four-Year	**80%**	**79%**	**2.5**	**2.4**
Independents				
Capitol College	77%	67%	2.0	1.1
Goucher	88%	83%	2.7	2.4
Loyola	91%	96%	3.0	3.0
Mount St. Mary's	90%	88%	2.6	2.2
Notre Dame	96%	88%	2.9	2.6
Villa Julie	88%	85%	2.6	2.6
Washington College	78%	60%	2.6	2.0
Western Maryland	95%	-	3.0	-
All Independents	**89%**	**86%**	**2.8**	**2.5**
All Campuses	**78%**	**73%**	**2.4**	**2.2**

Notes: Johns Hopkins does not provide students with letter grades in their first semester, so average grades are not available for first math course. St. John's was unable to provide a course number with the grade, so this information was omitted.

Table 7

Performance in First College English Course of Core and Non Core Curriculum Students (By Institution)

	% with 'C' or Better		Average Grade	
	Core	Non-Core	Core	Non-Core
Community Colleges				
Allegany	94%	89%	2.9	2.8
Anne Arundel	82%	78%	2.5	2.3
Baltimore City	80%	81%	2.1	2.1
Carroll	84%	63%	2.3	1.8
Catonsville	84%	79%	2.5	2.2
Cecil	92%	87%	2.8	2.2
Charles	88%	84%	2.7	2.6
Chesapeake	80%	82%	2.4	2.3
Dundalk	78%	79%	2.3	2.5
Essex	76%	79%	2.1	2.2
Frederick	81%	66%	2.3	1.9
Garrett	69%	56%	2.4	1.7
Hagerstown	87%	89%	2.7	2.6
Harford	84%	68%	2.5	2.1
Howard	79%	72%	2.3	2.1
Montgomery	74%	65%	2.2	1.8
Prince George's	76%	74%	2.3	2.1
Wor-Wic	83%	81%	2.5	2.5
All Community Colleges	**81%**	**74%**	**2.4**	**2.2**
University of Maryland				
Bowie	93%	95%	2.3	2.4
Coppin	97%	99%	3.0	2.8
Frostburg	93%	92%	2.5	2.5
Salisbury	98%	98%	2.8	2.9
Towson	93%	90%	2.8	2.6
UMBC	94%	94%	2.9	2.9
UMCP	90%	89%	2.7	2.6
UMES	96%	96%	2.7	2.6
All University of Maryland	**93%**	**93%**	**2.7**	**2.6**
Morgan	85%	84%	2.5	2.3
St. Mary's	95%	100%	3.0	3.2
All Public Four-Year	**92%**	**92%**	**2.7**	**2.6**
Independents				
Capitol College	85%	75%	2.3	1.8
Goucher	95%	100%	3.1	2.9
Loyola	97%	98%	3.0	3.1
Mount St. Mary's	97%	89%	2.5	2.5
Notre Dame	96%	100%	3.0	3.1
Peabody	100%	100%	3.8	2.7
Villa Julie	89%	85%	2.3	2.3
Washington College	100%	90%	3.0	3.0
Western Maryland	100%	100%	3.2	3.0
All Independents	**95%**	**91%**	**2.8**	**2.6**
All Campuses	**88%**	**82%**	**2.6**	**2.4**

Notes: Johns Hopkins does not provide students with letter grades in their first semester, so average grades are not available for first English course. St. John's was unable to provide a course number with the grade, so this information was omitted.

Table 8
Cumulative Grade Point Average After First Year of Core and Non Core Curriculum Students (By Institution)

	Core	Non-Core
Community Colleges		
Allegany	2.5	2.4
Anne Arundel	2.4	2.1
Baltimore City	1.7	1.7
Carroll	2.3	1.8
Catonsville	2.4	2.2
Cecil	2.7	2.3
Charles	2.6	2.5
Chesapeake	2.2	2.0
Dundalk	2.2	2.3
Essex	2.0	2.0
Frederick	2.4	2.2
Garrett	2.8	1.7
Hagerstown	2.6	2.5
Harford	2.3	2.0
Howard	2.2	2.1
Montgomery	2.3	2.0
Prince George's	2.2	2.1
Wor-Wic	2.1	1.7
All Community Colleges	**2.3**	**2.1**
University of Maryland		
Bowie	2.5	2.4
Coppin	2.5	2.1
Frostburg	2.4	2.3
Salisbury	2.9	2.8
Towson	2.7	2.6
UMBC	2.7	2.7
UMCP	2.7	2.5
UMES	2.5	2.4
All University of Maryland	**2.6**	**2.5**
Morgan	2.4	2.2
St. Mary's	3.0	2.9
All Public Four-Year	**2.6**	**2.5**
Independents		
Capitol College	2.1	1.4
Goucher	2.9	2.6
Johns Hopkins	2.9	3.0
Loyola	2.9	3.0
Mount St. Mary's	2.8	2.3
Notre Dame	2.9	2.9
Peabody	3.3	3.3
St. Johns	1.9	3.2
Villa Julie	2.6	2.5
Washington College	2.6	2.5
Western Maryland	3.2	2.5
All Independents	**2.8**	**2.6**
All Campuses	**2.5**	**2.2**

Note: Grade point averages for Johns Hopkins represent just the second semester.

Table 9
Percent of Core and Non Core Curriculum Students Needing Remediation in College
(By Gender and Race)

	Math		English		Reading	
	Core	Non-Core	Core	Non-Core	Core	Non-Core
Gender						
Men	17%	29%	13%	24%	13%	23%
Women	20%	35%	11%	24%	14%	27%
Race						
African-American	32%	47%	24%	42%	26%	42%
Asian	8%	13%	7%	11%	11%	16%
White	16%	27%	8%	17%	9%	18%
Other	20%	25%	11%	17%	17%	20%

Table 10
Performance in First Math Course of
Core and Non Core Curriculum Students
(By Gender and Race)

	% with 'C' or Better		Average Grade	
	Core	Non-Core	Core	Non-Core
Gender				
Men	73%	70%	2.2	2.1
Women	82%	77%	2.6	2.4
Race				
African-American	73%	70%	2.2	2.0
Asian	83%	78%	2.6	2.4
White	79%	74%	2.4	2.3
Other	72%	72%	2.2	2.2

Table 11
Performance in First English Course of
Core and Non Core Curriculum Students
(By Gender and Race)

	% with 'C' or Better		Average Grade	
	Core	Non-Core	Core	Non-Core
Gender				
Men	84%	77%	2.4	2.2
Women	90%	87%	2.7	2.5
Race				
African-American	85%	82%	2.4	2.2
Asian	86%	84%	2.6	2.4
White	89%	82%	2.7	2.4
Other	86%	81%	2.5	2.2

Table 12
Cumulative Grade Point Average After First Year of
Core and Non Core Curriculum Students
(By Gender and Race)

	Core	Non-Core
Gender		
Men	2.3	2.1
Women	2.6	2.4
Race		
African-American	2.2	2.0
Asian	2.6	2.4
White	2.6	2.3
Other	2.4	2.2

Table 13
Results of Multiple Regression Analysis Using Grade in First Math Course as Dependent Variable

Step	Independent Variable	R	R^2	R^2 Change	T	Sig T	Correlation
1	High School GPA	.2762	.0763	.0763	10.587	.0000	.2762
2	SAT Math Score	.3007	.0904	.0141	8.686	.0000	.2114
3	Avg Grade-Foreign Lang	.3178	.1010	.0106	5.934	.0000	.1972
4	Honors Calculus	.3222	.1038	.0028	3.366	.0008	.1784
5	Gender	.3434	.1179	.0141	8.812	.0000	.1233
6	SAT Verbal Score	.3472	.1206	.0027	-3.679	.0002	.1231

Table 14
Results of Multiple Regression Analysis Using Grade in First English Course as Dependent Variable

Step	Independent Variable	R	R^2	R^2 Change	T	Sig T	Correlation
1	High School GPA	.3004	.0903	.0903	12.115	.0000	.3004
2	Average Grade - English	.3378	.1141	.0239	8.280	.0000	.2429
3	SAT Verbal Score	.3587	.1287	.0145	8.093	.0000	.2308
4	Gender	.3827	.1465	.0178	10.024	.0000	.1706
5	Honors Calculus	.3839	.1474	.0009	2.120	.0341	.1451
6	Father's Educational Level	.3872	.1499	.0025	3.609	.0003	.1013

Table 15
Results of Multiple Regression Analysis Using Grade Point Average as Dependent Variable

Step	Independent Variable	R	R^2	R^2 Change	T	Sig T	Correlation
1	High School GPA	.3836	.1472	.1472	15.540	.0000	.3836
2	Average Grade - English	.4171	.1740	.0268	5.369	.0000	.2785
3	SAT Verbal Score	.4375	.1914	.0174	4.578	.0000	.2683
4	SAT Math Score	.4395	.1932	.0018	5.131	.0000	.2589
5	Avg. Grade-Social Science	.4447	.1977	.0045	5.616	.0000	.2536
6	Honors Pre-Calculus	.4466	.1995	.0018	2.596	.0095	.1838
7	Gender	.4709	.2217	.0222	11.347	.0000	.1726
8	Father's Educational Level	.4720	.2228	.0011	2.486	.0130	.1100